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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,580	09/30/2003	Hassan Serhan	3518.1010-000	9958

21005 7590 12/28/2006  
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.  
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CONCORD, MA 01742-9133

EXAMINER
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SWIGER III, JAMES L

ART UNIT	PAPER NUMBER
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3733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/675,580

Applicant(s)

SERHAN ET AL.

Examiner

James L. Swiger

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 7-10, 14, 16-23 and 25-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-13, 15 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/26/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Zdeblick et al. (US 6,375,655) in view of Gorek (US Pat 6,752,809). Zdeblick et al. disclose a fusion device for use in the spine comprising a body (50) having a proximal portion (end @ 52), and a distal portion (opposite proximal end) that defines conduit, defined as an artificial channel or passage (see Fig. 9) that is substantially parallel to, and also may be considered along, the major axis (also see at least 51). Zdeblick et al. also disclose a supporting means (see Fig. 2) capable of supporting the vertebrae in a distracted position while the vertebrae fuse (see Fig. 13 c), and wherein the open inside of the supporting means is considered a conduit in fluid communication with the conduit of the body. The supporting means also has a height distinct from the width along a cross-section of the body supporting means (see profile in Fig. 2). Also the body or supporting means is capable of distracting vertebrae in that when the body (50) is connected to the supporting means (Fig. 2), it is capable of being turned (Fig. 6) into a position that could expand the vertebrae and distract them (Col. 4, lines 34-45). Further

Art Unit: 3733

the supporting means may be a cage (Fig. 2) considering its open, hollow surround. The supporting means also maintains a substantial natural angle (see Fig. 3, lines A merging at the narrow end of the supporting means).

Zdeblick et al. disclose the claimed invention except for a conduit throughout. Gorek, previously disclosed, has a conduit throughout allowing access to the vertebral support from the proximal end (Col. 2, lines 53-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Zdeblick et al. having at least a conduit throughout in view of Gorek to better have access to the vertebral portion.

Claims 11-13, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Zdeblick et al. '655 and Gorek '809 as applied to claim 3 above, and further in view of Mathews (US Pub 2003/0028251). The combination of Zdeblick et al. '655 and Gorek '809 disclose the claimed invention except for a supporting means that is a balloon that and materials, used in the supporting implant or in the balloon may facilitate bone growth, or a flowable material. Mathews discloses a spinal device that is capable of being a support device as a balloon (see 34, and see pars 0043 to 0045) that is capable of providing support and that may be made of bioactive, or bioresorbable material (par. 0053) and that is flowable (see Pars. 50 and 51, and see Fig. 9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of the combination of Zdeblick et al. '655 and Gorek '809 having at least a balloon and bioactive/resorbably materials in view of Mathews to better support the spine in use.

***Response to Arguments***

Applicant's arguments filed 10/12/2006 have been fully considered but they are not persuasive.

With regards to the claim amendment being "throughout" the body, the art still reads on the claim because 51 is defined as a "shaft" which generally at least has a conduit as part of the structure.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L. Swiger whose telephone number is 571-272-

Art Unit: 3733

5557. The examiner can normally be reached on Monday through Friday, 9:00am to 5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JLS

12/20/06



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER